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THE

SINKING FUNDS

OF

NEW YORK CITY.

BY

EDGAR J. LEVEY,

Deputy Comptroller.

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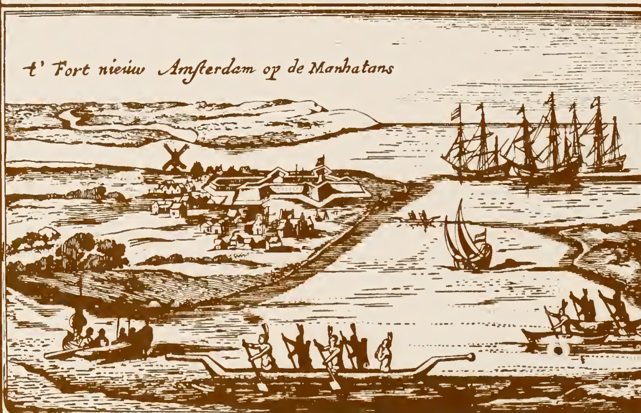

FORT NEW AMSTERDAM (NEW YORK), 1651.

When you leave, please leave this book
Because it has been said
"Ever'thing comes t' him who waits
Except a loaned book."

THE SINKING FUNDS OF THE CITY OF NEW YORK.

BY EDGAR J. LEVEY.

The Sinking Fund system of the City of New York has long been shunned by the casual student of municipal affairs on account of its intricacies and difficulties, which have, indeed, sometimes been exaggerated. That this system is far from simple cannot be denied; but it is by no means true that its complexities are so great as to offer serious obstacles to the understanding of any intelligent investigator. Even in its most defective features, it is a natural outgrowth from the financial conditions of the past century, and a brief narrative of those conditions will serve to explain the existence of many peculiarities which might otherwise seem anomalous.

Before taking up for review the history of the New York city sinking funds, it is desirable, however, to appreciate at the outset the difference between the conditions under which sinking funds are established by national and by municipal governments. National governments are supported largely, if not chiefly, by indirect taxation and by revenues uncertain in amount, in consequence of which there can be no exact or scientific correspondence between budgetary appropriations and treasury receipts. Their budgets may fall within the limits of these revenues or they may exceed them. In the one event, there is a treasury surplus; in the other, a deficit. If the maintenance of a sinking fund be not treated as a preferred obligation over other items in a national budget, the moneys which should be applied to it are usually the first to be diverted to the more pressing exigencies of current expenditure, and its growth is continually interrupted. If, on the other hand, the maintenance of a sinking fund be treated as a preferred obligation, it will necessarily happen, in years of deficient revenue, that the nation must become otherwise indebted, partly or wholly as a result of such sinking fund maintenance. In other words, faithful redemption of old debt merely results, under such conditions, in the incurring of new debt, and sometimes at a higher rate of interest. This is precisely what happened to England during the

period of heavy borrowing between 1785 and 1829, when about £330,000,000 were borrowed at about five per cent in order to redeem the same amount of debt at four and one-half per cent, resulting in an annual interest loss of £1,627,765 for 43 years.

The frequent changes of policy in regard to the maintenance of sinking funds by both the governments of Great Britain and the United States have been attributable, principally, to these causes.

In the municipal governments of to-day, however, the raising of annual revenue follows as a direct consequence of the framing of the annual budget, and the extent of that revenue is made dependent, with almost scientific exactness, upon the size of each budget. In American municipalities direct taxation, if not the sole means of revenue, is at least the residual factor, determined (through the medium of a tax rate) by the requirements of the annual appropriations. There should be, therefore, neither surplus nor deficiency, and the causes which, in national governments, give rise to temporary suspensions of debt amortization and disarrangement of sinking fund policies are wholly absent. There are, in contemporary municipal governments, no obstacles in the way of scientific debt redemption, unless those obstacles be—as they are in the case of New York city—inherited from the mistakes of the past.

THE SINKING FUND OF 1813.

It is not difficult to understand why the sinking fund of the city of New York was originally framed upon defective principles. The funded debt of the city had its beginning in 1812, when authority was obtained from the legislature to issue bonds to the amount of $900,000 to fund floating indebtedness which had been incurred by the city partly on account of the construction of the present city hall and other public buildings. The act of the legislature of June 8, 1812, did not attempt to pledge any specific revenues of the city for the *redemption* of the bonds thereby authorized to be issued, but sweepingly declared that "all and singular, the revenues of the Mayor, Aldermen and Commonalty shall be and they are hereby pledged and appropriated for the payment of the *interest* which shall become due on the said stock."

In 1813 Comptroller Thomas R. Mercein took steps looking towards the ultimate redemption of the principal of this debt and recommended to the common council the establishment of a sinking fund for this purpose. At that time expenditures of the city

government were not strictly limited, as now, by appropriations made in advance of the incurring of liability. Public work was performed and supplies were furnished upon the orders of the common council; and, while the local authorities were compelled to furnish to the legislature estimates of expense in order to obtain annual authority to levy taxes, there was no substantial correspondence between these estimates and the liabilities actually incurred from time to time by the common council. Moreover, in the early part of the nineteenth century, the miscellaneous revenues of the city formed a much larger proportion than now of the total receipts of the city treasury, and to this extent taxation was a less important factor in determining the limits of annual expenditure. There were at that time frequent annual deficits, and the whole financial system bore more resemblance to the state of the national finances than it did to the better ordered budgetary methods of modern municipalities.

When Comptroller Mercein first broached the idea of a municipal sinking fund for the city of New York, the ideas of the preceding century in regard to what constituted "funded" debt still persisted to a considerable degree. Debt was regarded as "funded" when based upon the pledge or mortgage of specific revenues. The state of the public credit then was not unlike that of China to-day, in that creditors demanded a tangible or visible guarantee. As Professor Ross states of the early English loans: "By this 'funding' policy the public debt came to consist of many small loans, each bottomed on its own petty item of revenue. This complicated and rigid system, wherein the growth of one source of income could not be used to eke out the shrinkage of another, proved unfit for a growing public finance."[1] It will be noted hereafter how a somewhat similar system has proved equally unfit for the growing public finance of the city of New York.

Comptroller Mercein had before him the examples of the United States and British governments, which had established sinking funds based upon pledges of specific revenues. Perhaps he may also have been influenced by the fact that it was doubtless easier then, as it is now, to secure for any purpose the appropriation of miscellaneous revenues of the city than moneys raised directly by taxation. Mercein's scheme contemplated the pledging

[1] *Sinking Funds*, p. 9.

of commutation of certain water lot rents and quit rents; licenses for pawnbrokers, second-hand dealers, hackney coaches and street vaults; market rents and fees and twenty-five per cent of the proceeds of sales of real estate belonging to the corporation (afterwards changed to all the proceeds of the sale of real estate belonging to the corporation in 1825). He estimated that these revenues would provide the sum of $400,000 by January 1, 1827, when the city stock became payable, leaving $300,000 to be otherwise provided for. On August 9, 1813, an ordinance in substantial conformity with his recommendations was passed.[1] The preamble of this ordinance read "whereas, it is highly useful to establish a fund out of which purchases of the New York city stock may from time to time be made, whenever the same can be done at par or the true value thereof, whereby the said stock will be prevented from depreciating and the redemption of the same will be regularly progressing, therefore," etc., etc.

The history of this sinking fund from 1813 to the date of its re-organization by the sinking fund ordinance of February 22, 1844, does not call for particular description, except that attention may be called to the financial inconvenience experienced from time to time by reason of the accumulation of unnecessarily large annual revenues, which fluctuated between $10,146.80 in 1814 and $176,556.55 in 1843.

Although the legislature, by several enactments following the Act of 1812, had made the sinking fund provisions of the ordinance of 1813 applicable to loans issued under their provisions, on December 10, 1832, the comptroller, Mr. Talman J. Waters, called the attention of the common council to the fact that the cash accumulations of the fund amounted to $311,101.49 ; that the outstanding city stock could not readily be obtained for purchase, as shown by the fact that "since the 15th July, 1831, there have been but three transfers of that stock, and they not for sale but for apportionment of estates"; and asked the question: "What shall be done with the accumulations of the sinking fund account ?" He

[1] Reënacted with slight variations in the revisions of 1817 1821, 1823, 1827 and 1834. The commissioners named were the mayor, recorder, city treasurer (chamberlain), comptroller, and chairman of the finance committee of the board of aldermen. Until the passage of the Greater New York charter in 1897, when the president of the council was substituted for the recorder, no change was made in the composition of this body, except that during the existence of bicameral local legislatures, the chairmen of the finance committees of both houses were commissioners of the sinking fund, *ex officio*.

called attention to the fact that, exclusive of sales of real estate, the average revenue of the fund would be sufficient to redeem the outstanding bonds in less than seven years, though those bonds had seventeen years to run, and he recommended that $300,000 of the sinking fund's cash be applied to the payment of bonds of the corporation (not by the terms of their issue redeemable from the sinking fund) held by the Bank for Savings.[1] This recommendation (entirely justifiable by the financial condition of the sinking fund, but as objectionable, from a technical standpoint, as many suggestions destined to be made thereafter in regard to similar conditions) was reported on favorably by the finance committee of the common council, who entered into an extended argumentative defense of the proposition.

The committee was of the opinion that "the case under consideration is one of a different character from that which would exist if the corporation were to pay its current engagements as they are contracted from year to year out of the sinking fund. That would clearly be a violation of the intention and purpose of the act, inasmuch as it would put in jeopardy that sacred and ample security which the legislature has reserved for the public creditor." This virtuous declaration was not accompanied by reference to the fact that the bonds proposed to be redeemed had been originally issued for current expenses and intended to be merely temporary loans to be paid from the proceeds of taxes, which had not been forthcoming.

This early difficulty, which was followed by numerous other advances of the surplus revenues of the sinking fund for general treasury purposes, foreshadowed many later experiences in the management of the sinking fund; among them, (1) that the revenues of municipal sinking funds can with difficulty be used to purchase before maturity bonds held by the public; (2) that one of their most useful functions is in absorbing new funded debt as it is issued from time to time; and (3) that sinking funds based on pledges of specific revenue lead to the greatest financial inconveniences without any corresponding advantages.

In 1834 the comptroller again called attention to the impracticability of making investments as directed by the ordinance, in consequence of the very high prices maintained by the several stocks therein designated, and renewed a former suggestion that,

[1] *Documents Bd. of Ald.*, Vol. II, No. 60.

inasmuch as a judicious investment of the funds could not be made in conformity with the ordinance, they might be applied to the payment for such real estate as the common council might deem it necessary to purchase for public purposes.[1]

On March 4, 1834, an ordinance was adopted (subsequently followed by many of a similar character) authorizing the commissioners of the sinking fund to invest in the purchase of lands for the extension of Grand street, Essex and Centre markets, providing at the same time that "the whole of the rents, fees and income of said markets in their improved state, and the land thus purchased, are hereby appropriated and pledged for payment of the principal and interest of the sum that shall be thus drawn from the said fund."[2]

These occasional diversions of the fund did not appear, however, to confine its growth within the limits of its original purpose. On January 1, 1840, the total funded liabilities of the city amounted to $7,716,105.78, of which $5,473,730 consisted of water stock, with he redemption of which the sinking fund had been charged on May 7, 1835. In his report for the year 1839, Comptroller Alfred A. Smith called attention to the fact that the revenues of the sinking fund "assigned originally to pay off a debt of a few hundred thousand dollars, not yet due by ten years, are amply sufficient to extinguish the whole funded liabilities of the city as they mature, with the exception of about two millions of the water loan redeemable in 1860; and this, too, without impairing its present capital or resorting to the claim for money heretofore drawn from the sinking fund for general treasury purposes, and which should be returned to it" He called attention, however, to the fact that the cost of the Croton Aqueduct would largely exceed the original estimates; that large additional issues of the stock would therefore have to be made; stated, that the revenue from the sale of water for years to come could not be expected to "contribute much, if, indeed, any, more than sufficient to keep down the interest of its cost"; doubted, in fact, "whether it can ever furnish anything towards the final cancellation of the loan!" and finally recommended that the sinking fund be strengthened by adding excise and ferry licenses to its pledged revenues.

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[1] *Compt. Rep.*, 1834, p. 4.

[2] *Proceedings, Common Council*, Vol. II, p. 134.

CAUSES WHICH LED TO THE SINKING FUND ORDINANCE OF 1844.

On January 1, 1843, the city debt had grown to $14,790,424.33, of which $11,897,801.10 had been incurred for the new Croton water system. The proper method of paying the interest on this water stock became a subject of political discussion. Pending the construction of the Croton Aqueduct, the interest on these bonds had been paid largely out of the proceeds of new issues; but during the last five months of 1842, such interest, to the amount of $152,914.53, had been paid from taxation. In that year the first receipts from the Croton water rents were forthcoming, and opinions differed widely as to the disposition which should be made of them. The Croton Aqueduct board believed that these water rents should be applied to the sinking fund for the redemption of the bonds. The comptroller held that they should be applied first to meet the current expenses of the Croton Aqueduct works; secondly, to the payment of interest on the bonds, and only lastly to the redemption of the stock. He estimated that under his plan the whole city debt could easily be paid off as it fell due, while, under the method proposed by the Aqueduct board, accumulations of the sinking fund would equal the whole city debt twenty-two years before the last of it became payable, whereby, he claimed, too great a burden would be cast upon the taxpayers of the day to the unjust advantage of posterity.[1]

In 1843 the board of aldermen requested a report from the comptroller, the street commissioner and its finance committee in regard to the expediency of selling the real estate of the city not in use or required for public purposes. This report, which was rendered on December 29, 1843, made the proper subject of its inquiry an excuse for dealing with a far wider reaching question—the re organization of the sinking fund; and incidentally it settled the mooted problem of the disposition to be made of the water revenue.[2]

The committee began by reciting that "the City is now burthened with a heavy debt, demanding annually, for the payment of interest, the levy of a large sum in the form of a tax upon the property of our citizens"; and stated that the means of reducing taxes were easily available by the sale of the valuable real estate owned by the corporation which, on account of its unimproved

[1] *Compt. Rep.*, 1842, p. 121.

[2] *Documents, Bd. of Ald.*, Vol. X., p. 585

condition, yielded nothing in the form of revenue to the city treasury. The report continues:

It has, much of it, for more than a century, been a direct burthen upon the taxable property of the City, as corporate property producing, as before stated, for that long period, little or no revenue *and paying no tax.*

Not only are the improvements, generally, such as tend to a low valuation, comparatively, of this property in our tax lists, and the revenue derived from it greatly inadequate to its present actual value, but that revenue is expensively and neglectfully collected. Public bodies like ours, potent and powerful, though they be in name and prerogative, make but indifferent landlords. They perform their functions, as such, through agents appointed, not so much with reference to their practical qualifications for the place as to their politics; not so much with reference to their ability and faithfulness in the collection of money, as to their skill and influence in collecting suffrages. The result may be deduced without any great forecast. We have sometimes good agents, and sometimes very poor ones, and last and worst, sometimes very corrupt and dishonest ones, who sink, by their defalcations, a large portion of the revenue, of which the collection is entrusted to them.

To avoid the necessity of these agencies to collect the value of that which produces an inadequate revenue, at best, into the fund to which it stands pledged, to apply it there to the final liquidation of the principal and interest of the debt which it has been devoted to secure, seems a primary object to be attained; and this object, your Committee think, will be most successfully accomplished by providing for the sale and disposition of the improved real estate of the city, in the mode suggested by the Ordinance.

* * * * * * * *

Existing Ordinances provide only for the administration of the Fund as it comes into the Commissioners' hands in cash. The proposed Ordinance in addition to this, is intended to establish a permanent policy in the management and sale of the unconverted property of the City, pledged to the Sinking Fund.

The objects to which this Fund ought to be devoted are two-fold; one for the liquidation of the *principal* of the City debt, and the other the payment of the *interest* as it accrues.

This has already been legislated upon by the State Government. It is enacted that the revenues assigned by the Corporation for the extinguishment of the debt, be permanently pledged for that purpose. The Ordinances of the Corporation fully respond to this. It has likewise been enacted that all other revenues of the Corporation, be pledged to the payment of the interest thereon; and in the same law, the State pledge themselves to pass all other necessary laws to levy a proper tax, in case these revenues should at any time prove insufficient.

These revenues were sufficient, until the creation of the Water debt, and thereupon, the legislature, in conformity with its pledge, passed a permanent law for the levying of this deficiency annually.

The Corporation, although it has always paid the interest, has never passed, in the form of an ordinance, a provision in conformity with the State pledge; and this is proposed in the Ordinance now submitted by your Committee.

THE SINKING FUND ORDINANCE OF 1844.

By this ordinance (which was approved by the mayor on February 22, 1844), the pledges of revenue for the redemption of the debt

were left practically unchanged, although a more complete and detailed method was provided for the speedy sale of the city's lands; but nearly all the remaining revenues of the city,[1] including water rents, were pledged to a separate sinking fund, the complete title of which was "The Sinking Fund of The City of New York for the Payment of the Interest Accruing and to Accrue upon the Stocks of The City of New York until the Same be fully and finally Redeemed."[2] The duties and powers of the commissioners of the sinking fund were prescribed with considerable detail and provision was made for the collection by taxation of the amount by which the revenues of the "Interest Fund" might fall short of the annual interest charges on city stock.

The plan of providing elaborate sinking fund machinery for meeting annually recurring interest charges seems rather remarkable. In the ordinary conception of a sinking fund there inhere two fundamental ideas: (1) debt redemption by anticipated payments, and (2) accumulation by the accretion of compound interest. Anticipated payment of *interest* on public securities is unknown except within such narrow limits as to be useless for purposes of amortization. The idea of accumulation seems equally inapplicable. It is obvious that so far as interest on debt is concerned, its periods of payment will substantially be of as frequent occurrence as the availability of the sinking fund resources. If, therefore, the amount of the available income equals or is less than the annual interest charge, there can be no accumulation; for the income will be no sooner received than it must be paid out. In such an event there can be no useful purpose in creating a "fund" for the performance of so simple a function. If, on the other hand, the amount of annual revenues exceed the amount of interest charged thereon, accumulation will undoubtedly ensue, but with the sole result of locking up money of the taxpayers for some problematical end which, at least, cannot be said to be in sight.

It has not been uncommon, in the creation of sinking funds, to charge them simultaneously with the payment of accruing interest, as well as with the duty of redeeming the principal of funded

[1] In 1859 it was found that the sinking fund ordinance of 1844 had not, in its enumeration of revenues pledged thereto, exhausted all the revenues of the city and these unpledged revenues (the sources of which had not existed in 1844) were credited to an account created on the books of the corporation, entitled the General Fund (subsequently known as the General Fund for the Reduction of Taxation).

[2] For the sake of brevity these two funds will generally be referred to hereafter as the "Redemption Fund" and the "Interest Fund."

indebtedness; but where this double duty operates upon a single fund, no particular inconvenience can result, since whatever is left of the annual revenues, after the payment of the interest, can be applied automatically to purposes of redemption or absorption of new issues. But in the sinking fund ordinance of 1844 two distinct funds were created, wholly independent of one another, and consequently affording neither aqueduct nor storage reservoir for the overflowing revenue of the sinking fund for the payment of interest. It is true that at the time the ordinance of 1844 was passed there was no true conception of what the future receipts from water rents would be. Even Comptroller Douw D. Williamson, in his argument in 1843, designed to emphasize the probable adequateness of these receipts, only estimated that for the thirty-eight years from 1843 to 1880 inclusive, they would amount to $14,475,000. In fact, they amounted, during this period, to $34,016,699.46. The financiers of that time were more interested in the question of supplying from taxation the deficiency in the annual interest charges left after the application thereto of water revenue than in planning for the disposition of what may have then seemed a very improbable surplus in those revenues. Owing to the rapidly increasing revenues from water rents, however, the necessity for resorting to taxation to supplement the resources of the interest fund ceased with the year 1850, as exhibited by the following table :

REVENUES AND DISBURSEMENTS OF THE "INTEREST FUND" FROM 1844 TO 1851 INCLUSIVE.

Year.	Croton Water Rent.	Dock and Slip Rent.	Ferry Rent.	Tavern & Excise Licenses.	Taxation.	Total Revenues.[1]	Interest Charge.
1844	$108 242.02	$34,397.00	$31,705.90	$34.987.10	$302,517.15	$570,525.23	$529.151.43
1845	157,791.66	68,424.38	46,786 20	35,079.89	375,000.00	770,410 50	754,672 59
1846	193,914.70	71,876.47	49,788.10	36,563.19	300,000.00	739,410.88	761,099.79
1847	221,635.10	75,866.39	50,720.00	41,565.55	300,000.00	771,048.86	765,417.25
1848	255,053.09	92,785.12	49,750.00	47,406.92	276,000.00	799,204.15	771,348.45
1849	278,811.72	100,208.13	50,127.04	48,746 29	250,000.00	800,678.25	779,089.96
1850	458,951.87	108,483.98	50,982.50	53,493.05	186,689.00	943,842.76	770,764.69[2]
1851	458,789 78	97 706.41	53,270.00	60,221.63	....	751,154.24	765,733.82

[1] The sources of revenue of the Interest Fund during this period were, in addition to those specifically enumerated above : (1) Common Land Rent, (2) Ground Rent, (3) House Rent, (4) Water Lot Rent, (5) Interest on bond and mortgage (6) Interest generally, (7) Mayoralty Fees. (8) Court Fees and Fines, (9) Fines and Penalties, (10) Police, (11) Sewer Permits, (12) Commutation of Alien Passengers, (13) Sales of Personal Estate.

[2] The balance (surplus) in bank on December 31, 1850, was $264,046.52.

The sinking fund ordinance of 1844 was in its inception entirely the creation of the local authorities. In the following year, how-

ever, its provisions were re-affirmed and embodied in the law of the state by the legislature. A memorial was presented to that body by the common council, with a bill for borrowing $500,000 for the Croton Aqueduct, the fifth section of which declared that the ordinance of 1844 should not be altered except to add to the "fund for the redemption of the debt" without the "consent of the legislature first had and obtained," and that the said ordinance should remain in "full force until the whole of the debt created for the introduction of the Croton water into the city of New York shall be fully redeemed." [1]

In 1856 the receipts of the "interest fund" were $1,136,852.65, which, with the cash surplus on January 1st of that year, aggregated $2,406,620.65, against which were charged interest payments of only $766,688.81. This tempting surplus seems to have been partly disposed of by the following method, which was evidently dictated by the temporary needs of the city treasury. The cash means of the "redemption fund" for the year 1856 were $1,434,085.19. Its redemptions of and new investments in funded debt amounted only to $1,065,459; but it had also invested $700,000 in revenue bonds of the city issued for current expenses in anticipation of the collection of taxes. This left a deficiency which was made good by the simple method of "advancing" $332,131.72 from the "interest fund." It was proving inconvenient to preserve the unnatural separation of the two funds. In 1857 this "advance" had increased to $386,325.60. On December 31, 1858, the interest fund had accumulated a surplus over and above all existing charges against the same of $2,579,534.12, and the ever increasing embarassment of this anomalous feature of municipal finance led, in the following year, to the passage of Chapter 406 of the Laws of 1859, which authorized the transfer of this surplus to the redemption fund.[2]

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[1] Ch. 225, L. 1845.

[2] The preamble of this act read as follows:

"Whereas, the revenue set apart and mentioned in title two of the ordinance of the mayor, aldermen and commonalty of the city of New York, entitled 'An ordinance providing for the redemption of the city debt, and the payment of the interest thereon,' passed February twenty-second, eighteen hundred and forty-four, being the revenues pledged and appropriated to the payment of the interest upon the said city debt, have accumulated after the payment of all interest provided for in said ordinance to be paid on said debt and chargeable to said sinking fund for the payment of the interest on said debt, so that on the first day of January, eighteen hundred and fifty-

This amount was transferred as of January 1st, 1859. During the year 1859, $542,501.02 was transferred; in 1860, $776,674.13; and in 1861, $683,495.75—making a total of $4,582,205.02.

APPLICATION OF SURPLUS REVENUES TO THE REDUCTION OF TAXATION.

This practical consolidation of the redemption and interest funds was not permitted long to continue. The unequal and therefore unfair adjustment of the debt burden as between present and future taxpayers, which resulted from the unnecessary segregation of nearly all the city's revenues, could not long escape the attention of the city's financial officers, naturally solicitous as they were to reduce the weight of taxation. The disparity between the redemption requirements of the city debt and the means set apart to effect that redemption had been accentuated by the action of the legislature in ignoring the interest fund in numerous acts passed subsequent to 1844 which provided that the interest on bonds thereby authorized to be issued should be paid from taxation.[1]

In 1862, Comptroller Robert T. Haws in a communication to the common council[2] recommended that legislation should be secured which would permit the surplus revenues of the interest fund to be applied to the reduction of taxation. After calling attention to the fact that the interest fund was charged with the payment of interest only upon the Water Stock, the Fire Indemnity Stock and the Building Loans Nos. 3 and 4, and that the interest on the greater portion of the then existing debt was by law payable from taxation, he stated:

Instead of applying such surplus to the unnecessary augmentation of the Sinking

nine, they amounted to the aggregate sum of two millions five hundred and seventy-nine thousand five hundred and thirty-four dollars and twelve cents;

"And whereas, there is no object to which said sum and the accumulations which may hereafter arise from said revenues can be applied, as no power exists by which the commissioners of the sinking fund mentioned in said ordinance, can invest said moneys permanently;

"And whereas, it is desirable that said surplus and the accumulations which may hereafter arise from said revenues, after the payment of all interest on said debt, should be transferred to the sinking fund for the redemption of the city debt provided for in said ordinance; therefore," etc., etc.

[1] On January 1, 1862, bonds were outstanding to the amount of $3,788,000, the principal of which had also been made payable from taxation by the laws authorizing their issue.

[2] *Documents*, 1862, No. 3.

Fund for the Redemption of the Principal of the Debt, as has been done during the last few years, it is proposed to appropriate the amount to the payment of interest and the general expenses of the corporation, which by existing laws are provided for wholly by taxation.

He submitted an estimate showing that the redemption fund would, without the assistance of the surplus revenues of the interest fund, be far more than sufficient to extinguish as it matured the entire existing debt payable therefrom.

As a consequence of these representations, the legislature by Chapter 163 of the Laws of 1862, authorized the transfer of the surplus revenue of the interest fund to the general fund "to be applied to the diminution of the taxes of said city."

In pursuance of this act there was transferred to the general fund during the seventeen years from 1862 to 1878, inclusive, the sum of $17,290,713.

THE BONDED INDEBTEDNESS ACT OF 1878.

During these seventeen years, there was an immense growth in the city's debt. Among the chief purposes for which bonds were issued during this period may be mentioned the improvement of Central Park, the war expenditures for bounties, etc., ($14,597,300), the wasteful undertakings of the Tweed ring and the refunding of floating indebtedness which necessarily followed its overthrow.

The funded debt increased from $25,738,042 in 1862 to $121,440,133 in 1878. Nearly all these new bond issues had been made payable, principal and interest, from taxation, so that on January 1, 1878, the state of the city debt and the sinking funds was as follows:

Funded debt payable from taxation,	$99,930,089.68
" " " " sinking fund,	21,510,043.47
Total Funded Debt,	$121,440,133.15
Deduct securities held by sinking fund,	31,080,007.54
Net Funded Debt,	$90,360,125.61

This situation naturally forced the serious attention of the local authorities. The sinking fund held securities amounting to nearly ten millions of dollars more than the entire debt which it was pledged to redeem. Nearly four-fifths of the entire city debt was payable from taxation, and the redemption dates of that debt had been so unevenly distributed that abnormal amounts would

have to be inserted in the budgets of certain years unless other provision should be made for its payment. The average revenues of the sinking fund for the preceding five years had exceeded three millions of dollars, and these revenues were steadily increasing. The last bonds payable from the sinking fund did not mature until 1917 at which time the surplus in the fund, if allowed to continue to accumulate uselessly, would reach Brobdingnagian proportions.

Comptroller Kelly on January 9, 1878, submitted to the mayor a draft of a bill to be presented to the legislature together with a memorial explaining its provisions.[1] Comptroller Kelly's scheme contemplated the following legislation:

(1) The sinking fund for the redemption of the city debt was to be continued and after providing for the payment of the bonds and stocks of the city payable therefrom as provided by law, should form a fund for the payment of the bonds and stocks *then outstanding* which had been made payable from taxation.

(2) All moneys and revenues heretofore pledged to the sinking fund to continue to be so pledged "until all of said bonds and stocks of the said city shall be fully and finally redeemed."

(3) The surplus revenues of the interest fund were to be definitely pledged to the redemption fund—in effect there being a new consolidation of these two funds.

(4) In consideration of the redemption by the sinking fund of outstanding assessment bonds, the proceeds of collections of assessments for local improvements completed or under contract at the time of the passage of the act were to be likewise pledged to the sinking fund.

(5) An amount not exceeding one million dollars a year was to be raised by taxation for the sinking fund whenever the commissioners of the sinking fund should certify to the board of estimate and apportionment that the accumulations of the sinking fund would not be sufficient to meet the payment of bonds falling due in the next following calendar year, and if this provision should still be found insufficient for that purpose, authority was to be given to issue refunding bonds payable within twelve years.

(6) For the payment of all bonds and stocks to be "*hereafter issued* pursuant to the provisions of any statute authorizing the same and which by the provisions of such statute are payable

[1] *Documents, Bd. of Ald.*, 1878, No. 2.

from taxation," regular amortizing installments were to be included in the annual tax levies.

(7) A new provision of law was recommended, the subsequent effects of which have been so important that it is quoted in full as follows:

> Between the city and its creditors, holders of its bonds and stocks as aforesaid, there shall be and there is hereby declared to be a contract that the funds and revenues of the city and the funds to be collected from assessments as aforesaid, by this statute pledged to the Sinking Fund for the Redemption of the City Debt, shall be accumulated and applied only to the purposes of said Sinking Fund as herein provided, until all of said debt is fully redeemed and paid.

The form and substance of Comptroller Kelly's proposed statute were undoubtedly influenced by the political conditions of the time. The factional antagonisms of the day were such that the state legislature and executive were certain to look with suspicion and distrust upon any recommendation emanating from the local authorities. Doubtless with a view to meeting all possible objections of a technical character, the Comptroller's bill was drawn in a manner which disclosed an unfortunate timidity of purpose. In the effort to appear to guard with zealous fidelity the interests of the bondholders entitled to the security of the pledged revenues of the sinking fund, and to create additional revenues for the benefit of purchasers of bonds to be thereafter issued, this bill was padded with pledges for the future which were not only unnecessary but were destined to work great inconvenience to the financial administration of the city. Especially was this true of the "contractual pledge" above quoted. Even this bill, however, when passed by the legislature was vetoed by Governor Robinson who claimed that the rights of holders of bonds payable from the sinking fund were violated, objected to the refunding provisions, and recommended that the $1,000,000 appropriation in the budget should be changed from a maximum to a minimum amount. The bill, having been modified so as partly to meet his objections, finally received his signature and became Chapter 383 of the Laws of 1878. This act which is commonly referred to as the "Bonded Indebtedness Act," committed the city to an indefinite bondage to the "pledged revenue" fetich from which it has never been able wholly to free itself.

In 1878 the time was ripe for a reorganization of the sinking fund system upon rational and scientific lines. It is obvious that at this time no bondholder could legitimately demand greater

security for his debt than a sinking fund which possessed assets nearly fifty per cent in excess of the entire debt payable therefrom. Wise statesmanship would have demanded, and good faith would have warranted, the diverting of all subsequent revenues of the sinking fund to the general fund for the reduction of taxation (partially accomplished during a period of seventeen years under the provisions of Chapter 163 of the Laws of 1862), and establishing new sinking fund regulations under which there should be raised each year by taxation amortizing installments exactly sufficient with their accumulations of compound interest to redeem all new debt at its maturity.[1] Such a departure would have proved most beneficial to the future management of the city's finances. If, however, unreasoning popular belief in the "pledged revenue" system seemed to demand its continued existence, there was no financial necessity for superimposing upon this system new provisions for additional revenue from taxation. The revenues of the sinking fund (amounting then to about three millions annually) were for practical purposes entirely "surplus"; and this surplus might properly have been charged (as it was eleven years later by the act of 1889), with the redemption of subsequently issued funded debt. But in 1878, as in earlier and later instances of legislative tinkering with the sinking funds, it was only the pressing financial inconveniences of the hour which controlled. The future might care for itself. The problem then seemed to revolve about these questions only: First, how to redeem otherwise than from taxation four-fifths of the public debt which, as originally issued, had been made thus redeemable; and secondly, how to dispose of an additional burden of $21,320,500 of assessment bonds for the redemption of which it was known that the revenues applicable thereto would be greatly deficient.[2] These ends were accom-

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[1] The writer is neither unaware of the argument which might be drawn from the provisions of Chapter 225 of the Laws of 1845, nor forgetful of the reasoning of Corporation Counsel Lacombe in his Sinking Fund opinion of November 28, 1884; but the theoretical benefits to be obtained in 1878 from a close, technical construction of sinking fund law were of such extreme tenuity, and the practical advantages of a common-sense construction so manifest, that it seems scarcely conceivable that adverse criticism could then have attached to any serious effort to reorganize the sinking fund system on a scientific basis. The situation was entirely different from that presented by the passage of the Act of 1889.

Professor Durand in his *Finances of the City of New York* (p. 310), holds similar views to those here expressed.

[2] Most of this large indebtedness had been incurred for street improvements begun during the Tweed regime, assessments for which had been frequently vacated or remitted by the courts owing to frauds and irregularities of various kinds.

plished, but in their accomplishment a sinking fund system was created so burdensome in its nature that it is not astonishing that only eleven years later further legislative interference was invoked and obtained in spite of the "contractual pledge" of 1878.[1]

By the change in the disposition of the surplus revenue of the interest fund—*i. e.*, from the general fund for the reduction of taxa-

[1] This period was an important one in the history of the city debt. On November 4, 1884, the constitutional amendment was adopted which prohibited cities of over one hundred thousand inhabitants from becoming indebted in excess of ten per centum of the assessed valuation of real estate, with an exception as follows: "Nor shall this section be construed to prevent the issue of bonds to provide for the supply of water, but the term of the bonds issued to provide for the supply of water shall not exceed twenty years, and a sinking fund shall be created on the issuing of said bonds for their redemption, by raising annually a sum which will produce an amount equal to the sum of the principal and interest of said bonds at their maturity." Ten per cent of the assessed valuation of the city on January 1, 1885 was $111,976,159.70. The total bonded debt, exclusive of revenue bonds, was $125,810,579.33, of which $35,479,579.33 was held by the sinking fund. If, as Corporation Counsel Lacombe had held, the constitutional restriction ran against the gross debt, the city would have exceeded this limitation. An attempt to issue $2,000,000 bonds for dock purposes was at first successfully enjoined by certain taxpayers and bondholders, and for a while new public improvements were suspended, but the Court of Appeals finally decided (Bank for Savings *v.* Grace, 102 N. Y. 313), reversing the courts below, that stock purchased by the sinking fund was "not a debt against the city within the meaning of the constitutional prohibition."

Prior to 1889 the constitutional provision above quoted relative to the creation of a sinking fund for water bonds required no particular attention, since, under the provisions of the Bonded Indebtedness Act amortizing installments were being raised for the redemption of *all* bonds issued since 1878. The view seems to have been taken, however (see *Minutes Com. of the S. F.*, Jan. 6, 1885), that this provision required the creation of such a distinct fund, regardless of the question, whether the constitutional limit of indebtedness had been exceeded by the city, and on January 16, 1889, the commissioners of the sinking fund adopted the following resolution:

"*Resolved*, that the Comptroller be and is hereby authorized and directed to separate the amounts of annual installments raised by tax for the payment at maturity, of bonds issued for the supply of water, pursuant to section 11, of Article VIII, of the State Constitution, to be kept as a distinct fund from the general account, and designate the securities in which the moneys are invested, to be reported from time to time, to this Board."

Thereafter these installments with their accumulations of interest and the stocks in which they were invested were segregated into a separate sinking fund known as "Sinking Fund for the Redemption of the City Debt, No. 2." Chapter 178 of the Laws of 1889 (see *post*) was drawn under a similar misapprehension, but three years later the Court of Appeals decided (City of Rochester *v.* Quintard, 136 N. Y. 221) that this provision had no application to a city whose indebtedness did not exceed the constitutional limit. Undoubtedly, had this been understood to be the law in 1889, the amendment to the Bonded Indebtedness Act passed in that year would have provided that the installments for water bonds might be provided from the surplus revenues of the redemption fund instead of from taxation.

tion to the redemption fund—there was added to the accumulation of the sinking fund during the ten years, 1879–1888, inclusive, the sum of $21,650,000—the effect of which was the same as though this amount had been raised directly by taxation. In 1879, the "minimum" appropriation of $1,000,000 provided by the Bonded Indebtedness Act was included in the tax levy.[1] In the next nine years the sinking fund installments raised by taxation under the provisions of the eighth section of the act, amounted to $4,880,-696.69.

Coincidently the ordinary revenues of the redemption fund, especially from dock rents continued to increase. The annual revenue, which in 1877 had been $2,909,066.14, grew by leaps and bounds until in 1888 it amounted to $8,903,284.80.

As these revenues exceeded the average annual issues of bonds during this period, the net funded debt (including assessment bonds and excluding revenue bonds), decreased from $111,649,317.91 to $88,120,405.34. This was too rapid a pace in debt extinction for the local authorities of the time.

The budget for the year 1878 had been $30,079,077.12; in 1888 it had grown to $37,051,053.93. It was generally agreed that a reduction of the burdens of taxation would be popular and desirable—even necessary. Debt amortization was proceeding at a rate which was not fair to the present generation. The experience of 1862 was about to be repeated, with this difference, however: that, whereas at the earlier date the diversion of the surplus revenues of the interest fund had awakened little if any protest, an attempt at this time to devote any of the revenues of the sinking fund to the reduction of taxation was bound to be open to the charge of a breach of faith founded on the solemn statutory pledge contained

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[1] The act as finally passed required the board of estimate and apportionment to insert in the budget such an amount as the commissioners of the sinking fund should certify to be necessary to meet the payment of any bonds or stocks falling due in the next following calendar year, by reason of an insufficiency in the accumulations to the sinking fund; "provided, however, that the amount so to be raised by taxation and paid into the Sinking Fund, as in this section provided, shall not in any one year be less than the sum of one million dollars nor more than two million dollars." The sum of one million dollars was inserted in the tax levy for the year 1879 in pursuance of the provisions of this section but this item never afterwards reappeared in the budget. The obviously excessive resources of the sinking fund led to a construction of the somewhat ambiguous phraseology of the act in regard to this appropriation, under which it was held to be required only when actually needed for the redemption of bonds maturing in the next calendar year.

in the act of 1878, declaring that a *contract* existed between the city and its creditors that all the revenues of the sinking fund should be applied only to its purposes until the entire debt payable therefrom should be finally redeemed and paid. What was really done was, in fact, a clear repudiation of this pledge. The method pursued was rather involved, but may be briefly summarized as follows:

(1) The annual installments required by the Bonded Indebtedness Act of 1878 to be raised for the redemption of bonds issued after June 3, 1878, were no longer to be provided for by taxation, but might be "set apart" out of the surplus income, revenues and accumulations of the sinking fund for the redemption of the city debt after fully providing for the payment of the stocks and bonds which had been made preferred claims or "liens" of said fund.[1] Recourse was to be had to taxation only in the event of these surplus revenues becoming insufficient. This provision did not affect the annual installments raised by taxation for bonds issued for water purposes under the supposed requirements of the constitution, but its immediate effect, was, nevertheless, to reduce taxation in the sum of $975,769.02.

(2) The sinking fund for the payment of interest on the city debt was charged with the new duty of paying "interest on bonds and stocks of said city purchased and held and to be purchased and held for investment by the commissioners of the sinking fund." The amount of such interest on January 1, 1889, was $1,617,915.54.

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[1] Under the Bonded Indebtedness Act the "liens" on the sinking fund were in the order of their priority, as follows:

1. Bonds payable from the sinking fund under the ordinance of 1844, and other ordinances of the common council authorizing their issue. The amount of such bonds outstanding on January 1, 1889, was $4,593,400.

2. Bonds issued under the provisions of § 6, Ch. 383, L. 1878 (§ 176 Con. Act) to refund or redeem before maturity bonds issued prior to June 3, 1878, which by the terms of their issue had been made payable from taxation. The amount of such bonds outstanding on January 1, 1889, was $9,700,000.

3. Bonds issued after June 3, 1878, for the payment of which no provision otherwise than from taxation had been made in the statutes authorizing their issue. The amount of such bonds outstanding on January 1, 1889, was $23,667,553.11 (exclusive of water bonds to the amount of $20,900,000, for which annual installments were raised by taxation and credited to "Redemption Fund, No. 2").

4. Bonds issued prior to June 3, 1878, originally payable from taxation. Amount outstanding on January 1, 1889, was $68,828,142.

Subsequently, under the provisions of Chapter 79 of the Laws of 1889, the bonds issued for the new parks in the 23rd and 24th wards and in Westchester county were made a direct charge upon the sinking fund.

By charging this amount against the interest fund instead of the tax levy, the surplus revenues of the interest fund, which the Bonded Indebtedness Act had specified as one of the pledged appropriations of the redemption fund, were, of course, depleted accordingly—a clear violation of the "contractual pledge."

Protests against this plan did not fail to appear in the public press; but so ample appeared to be the security of the city's bondholders that the validity of the act embodying these suggestions (Chapter 178, Laws 1889), has never been called into question in the courts. The legislature authorized the board of estimate and apportionment to "reconsider, revise and amend the final estimate for 1889" (passed in the preceding December), and the sum of $2,653,684.56 was accordingly stricken therefrom.

The effect of the act of 1889 upon the Bonded Indebtedness Act may be stated as follows: first, it practically repealed the provision in the act of 1878 relative to the raising by taxation of installments for the redemption of all bonds issued after June 3rd, of that year and made them a residual charge upon the ample ordinary revenues of the Redemption Fund; secondly, it brought about a partial return to the policy of the act of 1862, which permitted the surplus revenues of the interest fund to be applied to the reduction of taxation, and conceivably (if the interest due on the bonds held for investment by the commissioners of the sinking fund should increase more rapidly than the revenues of the interest fund) might some day result in the entire absorption of the fund for that purpose.[1]

The revenue of the redemption fund dropped from $8,903,-284.80 in 1888 to $6,444,761.39 in the following year. Yet such have been its recuperative qualities, due to the rapid growth of its principal sources of revenue, that its revenue amounted to $10,-266,488,07 in 1897 and $12,592,310.46 in 1900.[2]

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[1] The practical effects of the act of 1889 upon subsequent tax levies have been as follows: The amortizing installments (which, if that act had not been passed, would have been raised by taxation) increased gradually from $975.769 02 in 1889 to $3,485,557.72 in 1900. The annual interest charge on sinking fund holdings (which otherwise would have been inserted in the tax levies instead of paid from the interest fund), increased from $1 639.450.34 in 1889 to $2,747,022.84 in 1900. The aggregate of these items, including interest compounded at three per cent (which would also have borne its share in increasing taxation), amounts to $62,085,759 95, which represents the total saving to the taxpayers during these twelve years.

[2] These figures include the amounts raised by taxation as installments on water bonds (constituting Redemption Fund, No. 2).

CONDITIONS EXISTING AT THE DATE OF CONSOLIDATION.

During the ten years preceding the Greater New York consolidation, and especially during the last three years of this period, the bond issues of the city of New York were much larger than at any other time in its history. During the years 1888–1897, inclusive, the issues (excluding $7,000,000 refunding bonds) aggregated $138,382,649.41, the principal objects of expenditure being as follows: water, $25,877,000; docks, $20,800,000; school houses, $18,725,365.97; other public buildings, $10,746,406.64; new parks in the 23rd and 24th wards, $9,823,100; other parks, parkways and drives, $11,771,493.95; assessment bonds, $13,043,536.21; repaving streets, $10,169,308; and bridges, $8,032,290.37.

The funded debt showed the following increase:

	Dec. 31, 1887.	Dec. 31, 1897.
Total Funded Debt,	$128,268,719.45	$223,018,033.78
Less Sinking Fund Investments,	34,057,319.45	84,192,672.51
Net Funded Debt,	$94,211,400.00	$138,825,361.27

In other words the revenues of the sinking fund during this ten year period had been so large that new bond issues aggregating $138,382,649.41 had effected an increase in the net funded debt of only $44,613,961.27. It is also a rather remarkable coincidence that the net funded debt on December 31, 1897, was almost exactly the same in amount as the aggregate of bonds issued during the ten preceding years.

The sinking fund problem which had to be faced by the framers of the Greater New York charter was not simple. The sinking funds brought into the financial system of the new city from the several municipal corporations annexed to the city of New York require but little comment. From the city of Brooklyn came two: The Sinking Fund of the City of Brooklyn and The Water Sinking Fund.

The former consisted almost exclusively of annual amortizing installments raised by taxation under laws authorizing the issue of certain bonds which constituted, however, only about twenty-seven per cent of the entire funded debt of the city of Brooklyn.[1]

[1] The history of the Brooklyn sinking fund may be briefly summarized as follows:

By Chapter 129 of the Laws of 1835, amending the Act of 1834 (Chapter 92) incorporating the city of Brooklyn, authority was granted to borrow $200,000 on the credit of the city for the purpose of erecting public buildings. Chapter 156 of the Laws of

Thirty-seven per cent of the Brooklyn debt was payable simply from taxation as it matured, a little over nine per cent from collections of assessments, and the remainder—about twenty six per cent from the water sinking fund.

The water sinking fund of the city of Brooklyn was derived from the net surplus income from the public water works after paying interest on all outstanding bonds issued for the construction and extension of said works and after discharging any other claims by law chargeable against the water revenue. It was provided, however, that when this surplus exceeded certain specified amounts, the commissioners of the sinking fund might, in their discretion, apply limited portions of that excess "to the reduction of the amount which must be inserted in the annual estimate and be

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1838 increased this amount to $500,000 and created a sinking fund to be fed by annual tax levy installments of $5,000 which were to be "inviolably appropriated and applied to the redemption of the loans already procured, and to be procured, under this act by the said city" (§ 8). The mayor, treasurer (afterwards changed to the auditor) and comptroller were designated as *ex-officio* the commissioners of this fund, and were authorized to invest moneys thereof in New York state or United States bonds and to purchase any part of the loans of the city of Brooklyn "before the time limited for the redemption of the same."

By Chapter 325 of the Laws of 1849 the surplus income from water rents, after deducting all expenses and charges of distribution were set apart as a sinking fund for the payment of the principal and interest of the water debt, under the management of the same commissioners.

By Chapter 22 of the Laws of 1850 a separate sinking fund was directed to be created to be called "the Sinking Fund to discharge existing liabilities," and to be composed of ten annual installments to be raised by taxation to redeem bonds which, to the amount of $65,000 were authorized to be issued to fund floating indebtedness.

Chapter 22 of the Laws of 1857 directed that $50,000 per annum should be raised by tax and paid into the sinking fund for the final redemption of water bonds.

A number of acts of similar general import were passed from time to time by the legislature, each providing for annual installments.

The "Water Sinking Fund" as a special account was definitely instituted by Chapter 396 of the Laws of 1859; but in actual administration no separation was ever made of its accounts from those of the general sinking fund.

On February 24, 1890, Mayor Alfred C. Chapin in a communication addressed to the common council (*Proceedings, Bd. of Ald.*, 1890, Vol. I, p. 491) stated that the sinking fund which then amounted to $10.459,892.19, had more than doubled in seven years; that the amount of debt falling due in the next ten years was small, and as the fund had recently increased at the rate of $1,000,000 annually, the total thereof would exceed $20,000,000 before the close of the nineteenth century; that the present holdings of the sinking fund exceeded in amount all the permanent debt falling due in the next fifteen years, and concluded that the fund had been "over supplied very substantially at the expense of the taxpayers during the past few years." This conclusion was largely based upon the principle that the debt service for revenue-producing public improvements should be a charge on such revenue, and upon the assumption that the revenue from the

raised by taxation to meet the interest on any of the bonds or obligations of the city of Brooklyn."[1]

Three small sinking funds came from Long Island City: one for the redemption of revenue bonds under the provisions of Chapter 782 of the Laws of 1895; one for the redemption of fire bonds under Chapter 122, Laws of 1894, and one for the redemption of water bonds under Chapter 759, Laws of 1895.

It was apparent to the framers of the Greater New York charter that each of these sinking funds might be permitted to work out its own ends without inconvenience to the taxpayers and without the necessity of amendatory legislation. The one difficult problem was the disposition to be made of the great redemption fund of the former city of New York with its tributary interest fund, and what scheme to apply to the redemption of bonds to be issued by the new city after the date of consolidation. As had so frequently happened before, political exigencies rather than economic principles determined this question. The Greater New York con-

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New York and Brooklyn Bridge and the water system would largely increase. He believed that it would be proper to cancel bonds held by the sinking fund to the amount of $7,333,000, but in view of the fact that $816,000 of water debt fell due in the following year he recommended that only $6,371,737 37 be cancelled, involving a reduction of the annual interest charge of $314,069 50. These recommendations, though plainly threatening the efficiency of the sinking fund, were carried into effect after the passage of Chapter 453 of the Laws of 1890 by the commissioners of the sinking fund, who on June 27 and June 30, 1890, cancelled $6,438,737.37 of its holdings (mss. *Min. Com. of the S. F.*, 1890, pp. 62, 63).

The efficiency of the Brooklyn sinking fund has been greatly impaired by frequent instances of maladministration, sometimes due to legislative action vacating or reducing assessments pledged to redeem bonds which had been paid from the sinking fund, though to some extent such losses have been offset by the method adopted in the city of Brooklyn of calculating annual amortizing installments without regard to future accretions of compound interest.

Prior to the date of this communication of Mayor Chapin, bonds to the amount of $4,133,466.41 had been issued payable from taxation in series of years and without sinking fund provision being made therefor. This practice was continued until 1895, when by Chapter 648 of the Laws of that year, amortizing installments were directed to be raised for the redemption of all bonds thereafter to be issued "pursuant to the provisions of any statute authorizing the same, but which by the provisions of such statute, are payable from taxation, other than revenue bonds issued in anticipation of the collection of taxes." This act also contained a provision, modelled closely after the New York city Bonded Indebtedness Act of 1878, authorizing any excess or surplus in the sinking fund to be applied to the liquidation of bonds not by the terms of their issue originally payable therefrom. In view of the methods adopted in administering this fund, it is difficult to see how any such surplus could have been expected to arise.

[1] § 15, Title IV, ch. 583, L. 1888.

solidation had been vigorously opposed by a small but determined minority of influential taxpayers. Threats had been made openly that the constitutionality of the forthcoming charter would be attacked in the courts, and one of the most obvious points of attack was to be found in the "contractual pledge" to the holders of bonds of the former city of New York, that all the enormous revenues of the redemption fund should continue to be accumulated until that fund had redeemed the last bond payable therefrom.

It was determined to avoid this point of attack. The revenues of the redemption fund were to be applied solely for the benefit of bondholders of the old city entitled to its security. At the same time new sinking funds were created for the amortizing of debt to be issued by the new city, to be composed of installments to be raised annually by taxation, which, with the accumulations of interest thereon should be "sufficient to meet and discharge such bonds or stocks by the time the same shall be payable."

Two new funds of this character were created: one, entitled "The Water Sinking Fund of The City of New York" [1] which had for its purpose "the liquidation of the principal of the debt incurred by the city of New York, as hereby constituted, on or after January 1, 1898, for the supply of water as provided by section ten of article eight of the constitution of the state of New York"; the other, entitled "The Sinking Fund of the City of York," [2] which had for its purpose the liquidation of the principal of all other funded debt likewise incurred "as to which no provision for the payment thereof otherwise than from taxation is made."

The president of the council was substituted for the recorder as a member of the sinking fund commission, the new funds were to be administered "in like manner as provided by the ordinance of the mayor, aldermen and commonalty of the city of New York, approved by the mayor, February 22, 1844, so far as the same may be applicable," and it was provided that the board should, in respect to the eight sinking funds antedating consolidation, administer the same "and perform, carry out and exercise the several trusts, powers, obligations and duties relating thereto, in the same manner as the same would have been administered, performed, carried out and exercised if this act had not been passed." As to all future issues of bonds in which investments might be

[1] § 208, *Greater New York Charter*. [2] § 206, *Ibid*.

made by any of the sinking funds, accruing interest was to be provided for by taxation, such charges upon the interest fund being thereby limited to the holdings on December 31, 1897, by the redemption fund of bonds of the former City of New York.[1] The "contractual pledge" of the Bonded Indebtedness Act was re-enacted,[2] and it was provided that

> The assets and accounts of each of said sinking funds shall, except as hereinafter otherwise provided be kept separate and distinct and the same shall in all respects be administered as independent trusts, subject to and governed by the several provisions of law or ordinance heretofore relating thereto, with the intent and purpose of preserving inviolate the rights of holders of bonds and stocks heretofore issued by any of the municipal and public corporations or parts thereof hereby made part of the City of New York including the Counties of Kings and Richmond.

Under such a scheme there was certainly little ground left for attacking the constitutionality of the new charter on account of its sinking fund provisions.

The charter commissioners seem to have been not altogether forgetful of the coming day when the redemption fund will have completed its functions, but the method adopted by them of disposing of its enormous revenues is destined to raise in the near future the same difficulties which were experienced under the Bonded Indebtedness Act of 1878. The most remote maturity date of bonds redeemable from the redemption fund is 1928. It will prove sufficiently burdensome, as will be seen hereafter, to accumulate unnecessarily the prodigious revenues of that fund for so long a period without repeating after that time the mistakes of the past. The financial inconvenience of any sinking fund system bottomed on resources derived otherwise than from taxation would seem to have been sufficiently demonstrated by the experience of New York city, lasting over a period of eighty four years, and it would have been better to have provided for the transfer of the revenues of the redemption fund, as they become released from existing pledges, to the general fund for the reduction of taxation. Instead of that, it was provided that

> Whenever the bonds and stocks outstanding on December 31, 1897, and being charges or liens on any of the sinking funds hereby made subject to the control of the Commissioners of the Sinking Fund, shall in respect to any such sinking fund be wholly discharged, liquidated or canceled, it shall thereupon be lawful for the Commissioners of the Sinking Fund to cancel such bonds of the Corporation of the City of New York, issued on or after January 1, 1898, as may be held by such sinking fund and the revenues of such sinking fund when thus relieved of such liens or charges shall thereupon and

[1] § 209, *Greater New York Charter.* [2] § 211, *Ibid.*

thereafter be paid into the Sinking Fund of the City of New York, as herein created.[1]

And it was furthermore provided that the amount of such payments into the sinking fund of the city of New York should be deducted from the annual tax levy installments. Practically this was a return to the system provided by the Bonded Indebtedness Act, as amended by the Act of 1889.[2]

The effect of this provision can best be appreciated by forecasting the probable condition of the sinking fund in 1928 when this contemplated transfer might take place.

EMBARASSMENT WHICH WILL RESULT FROM THE EXISTING SYSTEM.

On December 31, 1897, the outstanding funded debt of the city of New York payable from the redemption fund No. 1 (excluding water bonds issued after the constitutional amendment of 1884) was $169,264,197.57. The investments and cash of redemption fund No. 1 on that date (excluding in the same manner the assets of redemption fund No. 2) amounted to $72,333,286.91—or $96,930,910.66 less than the entire debt redeemable therefrom.

During the five year period, 1888–1892 inclusive, the revenues of the redemption fund (excluding always the installments for water bonds) were $32,846,750.91. During the next five year period 1893–1897, inclusive, such revenues were $37,229,773.59. This shows an increase of more than thirteen per cent. For obvious reasons the future percentage of increase in the revenues of the redemption fund is likely to exceed rather than fall short of this figure.

During the period 1898–1900, inclusive the aggregate revenues of redemption fund No. 1 show an increase of more than sixteen per cent over the revenues of the preceding three year period. While this has been due to a slight extent to the accidental results of con-

[1] Professor Durand in his *Finances of New York City* (p. 318), expresses the hope that the provision above cited will not be interpreted "so as to require heaping up accumulations after the funds have fully equalled the bonds payable from them, but before such bonds are due." Unfortunately the language of the law seems wholly free from ambiguity on this point. As to whether the legislature would be justified in amending this provision so that it should operate when the redemption fund investments equalled the entire debt payable therefrom involves distinctly the same interesting question which presented itself at the time of the passage of the Bonded Indebtedness Act of 1878.

[2] Except that interest on sinking fund investments in bonds issued after January 1, 1898, would continue to be paid from taxation instead of from the interest fund.

solidation which widened the field from which certain revenues are collected, it is mainly attributable to two causes of a continuing nature : (1) Normal increase of the most important revenues, and (2) the change effected by the charter in the method of paying interest on new sinking fund investments.[1] It is manifest that as the character of the sinking fund holdings gradually changes from bonds of the former city of New York, the interest on which is paid from the interest fund, to bonds of the new city, the interest on which is payable from taxation, this percentage of increase will grow still more rapidly. On the whole, it seems very conservative to estimate that each future five year period will show an average increase of fifteen per cent over each similar preceding period.[2]

Assuming such a percentage of increase, the accumulations of this fund will, at the close of the year 1908, exceed the entire debt redeemable therefrom by $6,444,070.87, and in the year 1928, when its functions will cease, there will be an accumulated surplus of $297,659,754.15.[3] It is practically certain that this colossal investment will be in bonds and stocks of the city. At three per cent the annual interest charge on this amount alone would be $8,929,792.62.[4] The amortizing installment to be raised by taxation on these bonds would be $7,648,279.52.[5] The following year under

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[1] Excluding revenue bonds, the sinking funds held on December 31, 1900, $22,-974,770.21 of the debt of the new city of New York issued since consolidation.

[2] Prof. Durand assumes a considerably larger percentage of increase. *Finances of New York City*, p. 339.

[3] All of the bonds which are preferred liens on the redemption fund might finally be redeemed in the year 1910; though some of these bonds may, at the pleasure of the city, run until 1928 and 1929.

In regard to the bonds issued after June 3, 1878, it was specifically provided by Ch. 178, L. 1889, (§192 Con. Act) that the "setting apart" of the surplus revenues of the redemption fund for their amortization should continue "until other provision therefor may be hereafter made by law." It is clear, therefore, that as to this latter class of bonds the holders thereof possess none of the contractual rights of the preferred lienors, and that the legislature may at any time alter this provision of law without the slightest violation of good faith. Until such legislation is obtained, however, the revenues of the redemption fund must be regarded as pledged until 1928, which is the most remote maturity date of the bonds payable under the provisions of Ch. 178, L. 1889.

[4] It is useless to attempt to forecast the additional interest which would be paid in 1928 on other bonds outstanding (not held by the sinking fund) as this depends upon the extent of future bond issues in all fields of municipal activity.

[5] The amount of annual sinking fund installments depend upon two factors: rate of interest assumed, and duration of the terms of the bonds. All sinking fund investments for many years have been on a three per cent basis, and this rate has been assumed. Terms of future issues are, of course, problematical, but in this calculation the average of past actual issues has been taken as a basis. The multiplier used has been 2.5678 per cent.

the provisions of the charter, all these bonds held by the redemption fund would be canceled and there would be a sudden drop in the tax-levy of $16,578,072.14.

It is certainly unnecessary to emphasize by elaboration the objections to any sinking fund scheme which permits such results. That taxation for the amortizing of public debt should bear evenly throughout the term of its existence is an elementary proposition. Nevertheless, prevailing conditions with their inevitable results are not to be gotten rid of jauntily by a mere stroke of the legislative pen. While it has been the aim of this paper to disclose the defects of the New York sinking fund system and to explain historically the causes which have led to their perpetuation, it has certainly failed of its purpose if it is not now apparent that all methods of escape from existing difficulties are likely to be attended with more or less embarrassment.

The difficulties which confronted the Greater New York charter commission of 1897 were not of their own creation. They were derived in large part from the Bonded Indebtedness Act of 1878, and reference has been made to the reasons of political expediency which induced this commission to treat the sinking fund problem with caution approaching timidity.

The commission appointed in 1900 by Governor Roosevelt to revise the charter has recommended no substantial changes in this system.[1]

The problem which demands solution is simply this: Should the solemn pledge to the holders of bonds of the city of New York contained in the Bonded Indebtedness Act of 1878 and continued to

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[1] The writer, as a member of that commission, feels that a few words of explanation may not be improper in respect to this omission. This commission had alloted to it by legislative enactment a period of time scarcely sufficient to perform in a satisfactory manner the difficult task with which it had been charged. Especially in the last months of its labors human endurance was taxed to its limits in disposing of those leading principles and details of municipal government which involved structural changes in the charter. Amendment of the sinking fund system involved no such structural change. It did involve, however, a degree of careful consideration and discussion which was at that time impossible to obtain. The writer, therefore, did not bring before the commission the problems which form the subject of this article, believing, first, that they were of such importance as to warrant the focussed attention of the public and the legislature; secondly, that they could be equally well treated at any session of the legislature in the near future, and lastly, that the disposition which should now be made of them ought at last to be final and the product of mature economic judgment, rather than (as has been hitherto so often the case) the hasty and ill-digested product of temporary expediency.

the present day by subsequent re-enactment be regarded as an irremovable obstacle in the way of scientific debt redemption.

On the one hand, the respect heretofore shown for this pledge may be illustrated by the following extract from a well-known and widely published opinion of one of the city's most eminent legal advisers—Corporation Counsel Lacombe:

> The idea that the sinking fund is never to be in amount in excess of the debts chargeable thereto or payable therefrom, is fallacious and must be avoided. Though called a "Sinking Fund," it is in fact a reserve fund which does not disappear when its accumulations equal the amount of the bonds to whose security it is pledged. The commissioners are entitled and bound to hold under their trust all the funds belonging or appropriated thereto, until every debt chargeable thereon is in fact paid in full, principal and interest. The creditors of that fund are entitled to the security for their debts afforded by all the accumulations of the fund, no matter how much the surplus thereof may be. Such accumulations or surplus the city cannot take from the commissioners, nor use for any purpose whatever. It cannot be in any way put beyond the reach of the creditors of the sinking fund. It must be held intact for the purposes of the trust, and the creditors of the fund are entitled at the maturity of their debts, to be paid therefrom in the order of the priorities of their claims thereon, and, in the meantime, to have the full fund held in trust as a security for such payment.
>
> The surplus of the Sinking Fund can no more be destroyed or withdrawn from the trust, or the operation thereof, than could the equity of redemption, surplus or increased value of land covered by a mortgage or trust deed to secure a debt be destroyed, withdrawn from the mortgage or trust deed or from the operation thereof.[1]

On the other hand, the important fact of very practical import may be alleged that by the Act of 1889 the "contractual pledge" was undeniably violated, and, so ample was the security of a city bond generally regarded, that no bondholder cared to contest the validity of this statute in the courts.

Perhaps it may be said that the solution of this question lies rather in the realm of finance than of law. If so, statutory construction becomes of less practical importance than the opinion of holders of city bonds.

REMEDIES DISCUSSED.

The extent to which public creditors are influenced at the present time by the existence of sinking funds designed to provide means for the liquidation of their claims may fairly be said to be a debatable question. In the early history of public loans, when public credit was but little understood, that influence was un-

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[1] The fact that one of the most important conclusions of this opinion was rejected by the Court of Appeals (Bank for Savings *v.* Grace, 102 N. Y. 313), should not deprive the reasoning of the learned corporation counsel on the point above discussed, of the respect to which it is entitled.

doubtedly very great. What Professor Ross has aptly termed the "*theatrical element* in practical finance" was undoubtedly served by the sinking fund based upon specific revenues, "characteristic of new countries in the earlier stages of financiering or of nations threatened with disaster to public credit." But to-day in the case of civilized states or metropolitan communities, it is rather the state of the public credit which controls, and in the common estimate of this there are really but two factors: ability and willingness to pay.

That sinking funds add to the popularity of municipal loans is unquestionable. But the cause for this is to be sought rather in the fact that sinking funds provide an easy and convenient method of liquidating indebtedness (really adding to a city's "ability to pay") than in any sense of proprietorship in accumulated funds.[1]

Certainly no valid reason can be forthcoming why a bondholder should prefer to be paid from specific revenues of a city rather than from the proceeds of taxation. Nor is it likely that a bondholder would ask greater protection of the law than the security of a sinking fund which would with certainty provide means for the ultimate discharge of his debt.

In the history of the New York city redemption fund, it seems to have been at all times assumed that its surplus revenues might, after meeting preferred charges thereon as they fell due, be made applicable to amortizing new issues. Yet this was but one means of lessening the surplus which would otherwise accumulate for the security of the preferred liens. If the preferred lienors were so confidently expected to view with complacency the appropriation of this surplus to the security of other bondholders, why should they not experience with equal contentment the transfer of such surplus for the benefit of the taxpaying public?

These are some of the considerations which must soon receive attention in the final determination of the disposition which should be made of the accumulations of the sinking fund for the redemption of the city debt.

Three remedies suggest themselves:

First: A return in whole or in part to the scheme embodied

[1] In fact the idea of accumulation is wholly absent from the conception of one of the most efficient forms of a sinking fund—the fixed sinking fund with a constant appropriation, which, by periodic purchases and extinction of outstanding debt, causes progressive declines in interest charges and correspondingly rapid amortization.

in the act of 1889. This would still leave in operation the objectionable features of the specific revenue system and would be open to the same theoretical charge of bad faith involved in the repudiation of the "contractual pledge" of 1878. It would, however, ameliorate the financial hardships of approaching years, and would possess the sentimental advantage of following a precedent.

Second: To provide that whenever hereafter the local authorities shall have inserted in the tax levy full and sufficient amortizing installments for the redemption of all bonds payable from the redemption fund all the specific revenues of the city now paid into that fund (excepting, of course, interest on investments and deposits), and accruing during that year, might be credited to the General Fund for the Reduction of Taxation.[1] This would undoubtedly be the most logical, scientific and satisfactory method, but it remains to be seen whether it would not call forth vigorous protests from some holders of bonds of the city of New York issued prior to consolidation.[2]

Third: To adopt the last mentioned method from the date when the last of "preferred lien" bonds shall have been redeemed—*i. e.*, in 1910. Such a course would be entirely free from technical objection (see note number 3, page 27). The chief disadvantage of this scheme would be the unnecessary taxation to be borne for the debt service until 1910.[3]

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[1] Scarcely any public attention is now given to the administration of the sources of the great revenues of the sinking funds. They have practically no immediate effect upon taxation. If the annual taxes were largely dependent in amount upon the size of these revenues—as they would be if such revenues were paid into the general fund—it is fair to assume that this important side of municipal administration would benefit from the closer public scrutiny which would inevitably follow.

[2] In 1900 the revenues of Redemption Fund, No. 1, exceeded the amount which would be required for an annual installment to redeem all the bonds payable therefrom by about five and one-half millions of dollars. This amount represents the unnecessary burden of taxation imposed by reason of an excessive debt-service. The appended statement shows year by year the excess of sinking fund revenues over the amounts necessary to amortize bonds issued since June 3, 1878. Amortizing installments to redeem the remainder of the debt payable from the redemption fund would average about $1,165,000 throughout the period covered by this statement. It is to be noted that, while the revenues of the redemption fund are steadily increasing, the installments required to redeem bonds of the former city of New York are naturally decreasing owing to cancellations of maturing bonds.

[3] This year, 1901, the installments raised by taxation for the two new sinking funds provided by the charter amount to $1,629,862.07. If new issues of bonds should continue to be made, running for similar average periods and in the same amounts for the next six years as in 1900, these installments would hereafter be: in 1902, $2,171,-

The increased burdens of taxation imposed upon the taxpayers of New York city by the operation of the Greater New York Charter have aroused a more critical spirit in regard to municipal expenditures than has been manifested for some time, and it is inconceivable that serious public discussion can be long postponed in regard to a subject which involves a possible lightening of the tax burden in an amount which already exceeds five millions of dollars annually, and which is destined soon to reach even much more formidable proportions.[1]

During the next few years it may be possible for the commissioners of the sinking fund to apply palliative measures by making

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1638 46; in 903, $2.713,414.85; in 1904, $3.255,191.24; in 1905. $3,796.967 63; in 1906, $4,338,744 02 ; in 1907, $4,880,520 41; in 1908, $5,422,296.80; in 1909, $5,964.073.19, and in 1910, $6 505,849.58. It might be possible, however, for the commissioners of the sinking fund to hasten the redemption of the "preferred lien" bonds by repurchases from the public under a system of competitive bidding. Of the "preferred lien" bonds outstanding and held by the public, $475,000 mature in 1902, $20,000 in 1907 (both first liens), $6,900.000 in 1908 (second lien), $9,357,000 ("park" lien) in 1909, and $2,800,000 (second lien) in 1910—making a total of but $19,552,000.

[1] It may readily be imagined that in the financial administration of the city there have been not a few compensating advantages derived from the overflowing revenues of the sinking fund. The necessity for refunding operations has seldom arisen. With a modicum of forethought it has been possible to husband the resources of the sinking fund so that large amounts of maturing debt could be easily redeemed without recourse to the tax levy. By far the larger part of annual new issues of bonds have been absorbed directly by the sinking fund for investment, thus avoiding the expenses and delays of frequent public bond sales, and rendering it possible to make close adjustments of cash to the needs of the city treasury. Many actual economies in regard to liabilities on interest account have been possible, and from the standpoint of mere convenience to the fiscal officers of the city, the situation has been, in these respects, thoroughly agreeable.

It should not be forgotten, moreover, that since consolidation the city has sometimes been perilously near to the constitutional limit of indebtedness; and to the excessive contributions of the taxpayers to the debt service in the past is due the fact that the net debt of the city is not at present much larger than it is. If a change in the sinking fund system should ensue, which would result in the surplus revenues of the redemption fund being applied to the reduction of taxation, it is not unlikely that in the near future many expenditures which are now payable from the proceeds of bond sales would have to be made from taxation. This consequence, however, would not be altogether deplorable. The city of New York now defrays from bond account many liabilities which are not in the nature of permanent public improvements. Among the most striking of these may be mentioned the stock or plant of the department of street cleaning, consisting largely of horses carts, harness, burlap bags and similar articles serviceable for but a few months, which are paid for from time to time from the proceeds of bonds maturing in thirty or forty years.

All expenses of ordinary maintenance of the dock department are similarly defrayed.

serious efforts to repurchase from the public outstanding bonds payable from the redemption fund. But it would scarcely be possible thus to redeem literally the whole of such outstanding debt; and if the redemption fund must, under the provisions of the charter, be treated as an inviolable trust fund until every bond now legally redeemable from it is paid, the relief afforded by such purchases would prove but temporary.

The repaving of streets, which in most cities is properly regarded as "maintenance," is likewise made a charge upon the public debt. Many similar instances might be cited. It would, indeed, seem that there has been in the financial history of the city an unconscious endeavor to equalize and adjust by these illogical means, the abnormal conditions which prevail in regard to the redemption of the city debt. It would be an interesting study to analyze the purposes for which the city of New York issues bonds with a view of ascertaining the extent to which payment of ordinary current expenses is thus postponed. But these considerations, though not unimportant, do not appear sufficiently weighty to offset the criticisms which have been made of the existing sinking fund system.

(TABLES FOLLOW.)

STATEMENT SHOWING THE OPERATIONS OF THE SINKING FUND FOR THE REDEMPTION OF THE CITY DEBT No. 1, FROM 1889 TO 1900 INCLUSIVE.

NOTE.—The Installments "Set Apart" under the provision of §2 of Chapter 178, Laws of 1889, were for the redemption of bonds issued after June 3, 1878. For the redemption of all other bonds payable from the redemption fund, an estimated annual installment of $1.165,000.00 would have been sufficient. Such annual installments would for the 12 years covered by this table have amounted to $13,980,000 00 leaving a net surplus of $49,284,643.13 to represent the cost to the taxpayers of the prevailing sinking fund system during this period. This "cost" would have been $111,370,403 08, had it not been for the passage of Chapter 178 of the laws of 1889. (See note number 1, page 20.)

The excessive contribution to the debt service in 1900 alone, was over five and one-half million dollars.

	Gross Funded Debt. (Former City of New York.) December 31.	Holdings of the Redemption Fund, (Excluding Cash December 31.)	Annual Bond Issues of the Funded Debt.*	Net Revenues.	Redemptions by the Redemption Fund of Bonds held by the Public.	Bonds (Payable from Sinking Fund and held by said Fund) Cancelled.	Investments in New Funded Debt Issues by the Redmption Fund.	Amount of Surplus Revenues "Set Apart" as Annual Installments under §2, Chap. 178, Laws 1889.	Excess of Revenue over Installment. "Set Apart" under §2 of Chap. 178, Laws 1889.
1889	141,943 615.42	37,360,620.50	15,541,719.96	5,542,289.68	4.181,700.00	954,900.00	3,189,225.04	975,769.02	4,566,520.66
1890	146.578,210.88	40,447,471.09	11,385,482.87	6,545,591.78	3,895,000.00	724,400.00	4,915,838.00	1,115,090 54	5,430,501.24
1891	150,327,869.73	42,269,563.94	7,609,346.85	6,731,597.15	894,200.00	2,732,900.00	4,762,180.85	1,311,146.16	5,420,450.99
1892	155,520,457 82	48,787,606.81	10,021,403.22	6,686,165 87	3,935,100.00	352,215.13	7,470,258.00	1,402,248.48	5,283,917 39
1893	167,129 323.37	56,516,762.64	12,006,099.90	7,934,313.62	2,000 00	14,500 00	7,993,690.18	1,589,549.43	6,344,764.19
1894	174,582,515.13	61,378,894,05	12,658,328.10	6,835,149.64	3,512,000.00	612,000.00	6 535.367.75	1,857,969.48	4 977,180.16
1895	186,995,507.86	62,586,404.90	16,359,126.54	6,983,773.02	1,876,300.00	951,300.00	3,450,249.93	2,039,335.55	4,944,437.47
1896	198,333,417.15	62,602,304.81	28,103,129.98	7,265,331.32	6,910,000.00	226,043.18	3,041,245.98	2,325,242.57	4,940,088.75
1897	226,079,678 79	71,987,530.86	32,001,560.50	8,211,205.99	1,244,200.00	470,537.63	10,144,464.32	2,940 470 29	5,270,735.70
1898	221,916,333.78	76,215,866.68	30,164,906.91	8,455,573.95	782,800.00	285,500.00	5 071,672.22	3,683,006.58	4,772,567.37
1899	216,402,044.96	80,642 952.74	30,308,190.68	8,325,186.44	500,000.00	3,700,688.82	8,303,653.24	3,677,512 57	4,647,673.87
1900	209,075,428.44	81,843,736.38	39,133,534.22	10,151,363.06	4,819,800.00	1,834,516 52	6,299,220.89	3,485,557.72	6,665,805.34

* Includes special revenue bonds, which, though not properly a part of the funded debt, are so treated on account of the provisions of §10, Art. VIII of the Constitution.

TABLE I.

Showing the Sources and Amounts of the Revenues of the Sinking Fund for the Redemption of the City Debt, from the Year 1813, the Date of the Foundation of said Fund, to and including the Year 1900.

NOTE.—Some of the items of revenue in this table are stated as "gross" receipts, *i. e.*, without deduction for refunds subsequently made therefrom. These refunds (for errors, over payments, etc.) were sometimes made in the same year as the revenues were received and sometimes in subsequent years. The aggregate of such refunds, however, is not sufficiently large to effect materially the figures given.

Column headings: Years; Commutation of Quit Rents; Water Lot Quit Rent; Market Fees; Market Rents; Market Rents and Fees; Market Cellar Rents; Dock and Slip Rent; Pawnbrokers' Licenses; Hackney Coach Licenses; Stage Licenses; Junk Dealers' Licenses; Sidewalk Stand Licenses; Second-Hand Dealers' Licenses; Excise Licenses; Interest: On Investments; Interest: On Deposits; Street Vaults; Pipe Line Franchise; Sales of Real Estate; Greenwich Prison Lots; Bonds and Mortgages; Taxation; Assessments; Transfers from Sinking Funds for Payment of Interest; Railroad Franchises and Licenses; Chamberlain's Commissions on State Tax; Unpaid West Farms Gas Tax; Premiums on Stocks and Bonds; N. Y. Steam Heating and Power Co. Franchise; Commissions of Jurors' Fines; Forfeited Security Deposit; Earnings New York and Brooklyn Bridge; Intelligence Office Licenses; Butchers' and Meat Shop Licenses; Miscellaneous; Totals; Years.

Years	Miscellaneous	Totals	Years
1813	....	$17,064 81	1813
1814	....	10,146 80	1814
1815	....	11,865 79	1815
1816	1 099 05	19,251 38	1816
1817	1,403 64	17,230 05	1817
1818	533 52	30,638 40	1818
1819	....	54,068 57	1819
1820	....	34 213 37	1820
1821	....	26,398 82	1821
1822	....	41,940 87	1822
1823	....	52,581 94	1823
1824	....	63,067 99	1824
1825	....	92 988 98	1825
1826	....	84,127 47	1826
1827	....	118,067 50	1827
1828	....	108,051 24	1828
1829	....	137,488 28	1829
1830	....	101,883 57	1830
1831	....	98,612 62	1831
1832	....	145,003 38	1832
1833	....	107,505 13	1833
1834	....	98,309 91	1834
1835	....	106,020 30	1835
1836	....	78,695 57	1836
1837	....	78,860 19	1837
1838	....	95,614 53	1838
1839	....	83,848 70	1839
1840	925 00	97,860 94	1840
1841	....	115,984 55	1841
1842	795 00	135,447 75	1842
1843	900 00	170,559 55	1843
1844	1,053 75	409,063 14	1844
1845	738 33	521,230 49	1845
1846	914 00	213 077 80	1846
1847	309 50	240,176 74	1847
1848	461 25	435,107 84	1848
1849	374 50	324,486 25	1849
1850	110 33	497,038 23	1850
1851	6 00	463,832 78	1851
1852	10 00	677,183 52	1852
1853	6 00	514,897 38	1853
1854	8 00	390,522 78	1854
1855	2 00	412,582 03	1855
1856	....	412,242 12	1856
1857	....	865,727 47	1857
1858	8 00	3,459,279 18	1858
1859	....	1,400,060 73	1859
1860	....	1,229,657 45	1860
1861	....	1,108,302 09	1861
1862	....	1,003,177 51	1862
1863	....	775 163 23	1863
1864	....	791,590 21	1864
1865	....	898,019 36	1865
1866	....	1,504,611 48	1866
1867	....	2,770,235 87	1867
1868	....	2,038,101 25	1868
1869	....	2,110,172 67	1869
1870	....	2,356,245 09	1870
1871	1,300 00	2,491,009 31	1871
1872	1,150 00	3,185,834 01	1872
1873	12,839 20	3 021,511 48	1873
1874	16 180 47	2 970,061 21	1874
1875	2,430 75	3 080,019 29	1875
1876	140 00	2,062 640 10	1876
1877	7,895 00	2 909,006 14	1877
1878	....	4,749 130 18	1878
1879	3 98	6 380 851 69	1879
1880	1 54	5,060,719 88	1880
1881	....	6,172 620 70	1881
1882	....	6,510 143 60	1882
1883	....	7,208,029 76	1883
1884	....	7 351,061 30	1884
1885	....	7,560,877 34	1885
1886	....	8 727,435 47	1886
1887	25 00	8,500 215 26	1887
1888	....	8,303 284 80	1888
1889	7,232 58	6,441,761 30	1889
1890	13,758 04	7,540 729 91	1890
1891	51,297 46	7,900 118 31	1891
1892	....	7,948,512 47	1892
1893	8,259 00	9,316,060 98	1893
1894	50 00	8,392,888 34	1894
1895	....	8,012,055 58	1895
1896	....	9,090,507 01	1896
1897	264 00	10,280,488 07	1897
1898	6 278 75	10,720 560 14	1898
1899	500 00	10,704 881 25	1899
1900	11 00	12,592,310 46	1900
Totals....	$170,801 01*	$238,336 301 47	

Column	Totals
Commutation of Quit Rents	$816,887 18
Water Lot Quit Rent	$18,228 82
Market Fees	$1,216,513 02
Market Rents	$1,003,149 82
Market Rents and Fees	$11 462,537 58
Market Cellar Rents	$715,616 94
Dock and Slip Rent	$39,042 001 39
Pawnbrokers' Licenses	$1,280,751 63
Hackney Coach Licenses	$316 567 00
Stage Licenses	$335,199 83
Junk Dealers' Licenses	$334,209 40
Sidewalk Stand Licenses	$43,245 25
Second-Hand Dealers' Licenses	$210,465 50
Excise Licenses	$2 533,570 24
Interest: On Investments	$69 347,977 15
Interest: On Deposits	$3,577,783 65
Street Vaults	$3,860,766 37
Pipe Line Franchise	$3,516 06
Sales of Real Estate	$6,697,479 99
Greenwich Prison Lots	$85,267 00
Bonds and Mortgages	$4,436,786 46
Taxation	$24,529,910 42
Assessments	$10 565 590 55
Transfers from Sinking Funds for Payment of Interest	$50 882,204 02
Railroad Franchises and Licenses	$2 816 825 66
Chamberlain's Commissions on State Tax	$85 000 00
Unpaid West Farms Gas Tax	$5,323 14
Premiums on Stocks and Bonds	$1 122,258 92
N. Y. Steam Heating and Power Co. Franchise	$1,843 02
Commissions of Jurors' Fines	$10,563 45
Forfeited Security Deposit	$10,222 10
Earnings New York and Brooklyn Bridge	$1,180,007 85
Intelligence Office Licenses	$8 582 00
Butchers' and Meat Shop Licenses	$37,401 44
Miscellaneous	$170,801 01*
Totals	$238,336 301 47

*This total—"Miscellaneous" receipts—is made up of the following items for the entire period:—Commutation of Wheat Quit Rent, $3,999.91; Sinking Fund Rents, $9,630.66; Bureau of Licenses, Fines, $11,00; Unexpended Balance Transferred from City Treasury Account for Redemption of Stocks and Bonds, $9,072.46; Theatre Licenses, $2 450; Marine Nat'l Bank, $61,528 75; Awards, Land Damages, $ 3,987.46; Premium on New Park Bonds, $1,175; For Quit Claim Deed, $25; New East River Bridge, $5,704; Sale of Old Buildings, $345; City Lunatic Asylum Fund, $6,057.58; Sale of Personal Property, $56,023.22; Drawing Deed, $50; City Seal, $75.

TABLE II.

Showing the sources and amounts of the annual revenues of the "Sinking Fund for the Payment of Interest on The City Debt," from the date of the establishment of said Fund in the year 1844 to the year 1900 inclusive.

Years.	Croton Water Rent.	Dock and Slip Rent.	Ferry Rent.	Common Land Rent.	Ground Rent.	House Rent.	Water Lot Rent.	Central Park Rents.	Interest on Bond and Mortgages.	Interest on Arrears Croton Water Rent.
1844	$108,242 02	$34,397 00	$31,705 90	$1,374 20	$18,535 40	$7,146 61	$7,042 27		$1,382 35	
1845	157,791 66	68,424 38	46,786 20	1,774 51	19,543 17	6,070 00	15,869 44		7,556 69	
1846	193,914 70	71,876 47	49,788 10	2,341 12	14,869 99	5,728 50	10,369 53		12,748 23	
1847	221,635 10	75,866 39	50,720 00	1,554 95	15,551 79	8,177 15	13,049 25		10,902 21	
1848	255,053 09	92,785 12	49,750 00	898 21	16,291 43	4,848 67	19,615 59		14,474 16	
1849	278,811 72	100,208 13	50,127 04	843 31	16,081 15	8,437 77	10,038 21		16,681 46	
1850	458,951 87	108,483 98	50,982 50	599 91	15,345 30	11,291 82	12,340 68		19,639 50	
1851	458,789 78	97,706 41	53 270 00	817 10	18 358 17	11,650 00	10,159 29		20,312 56	
1852	562 189 89	128,137 52	62,887 50	594 60	29,866 17	9,492 16	14,276 05		31,273 53	
1853	600,039 66	125,361 89	66 900 00	137 50	27,777 24	12,760 80	9,605 85		33,121 01	
1854	641,113 27	155,165 50	90,506 00	200 00	32,249 55	15,978 21	14,295 58		40,881 41	
1855	708,690 38	160,602 10	105,459 17	220 00	28,063 11	19,734 50	8,148 93		35,054 05	
1856	702,242 60	156,425 42	98,394 50	120 00	26,165 87	21,280 74	8,015 76	$3,925 00	41 053 00	
1857	734,732 81	159,799 37	95,085 00	50 00	24,276 74	14,236 12	7,600 47	1,872 00	32,285 33	
1858	783,623 88	145,732 81	104,505 83	30 00	23,265 42	10,042 69	7,827 83		37,765 35	
1859	813,452 53	142,990 63	112,664 50	97 50	23,454 00	27,870 89	7,931 10		33,551 46	$8,047 77
1860	814,711 96	169,309 97	91,412 50	367 50	23,543 25	19,325 22	15,059 08		26,140 94	8,208 85
1861	804,938 08	203,801 75	106,904 00	170 00	24,115 75	15,520 82	6 627 44		17,390 12	4,710 42
1862	840,549 62	209,065 27	135,800 00	165 00	23,865 76	15,400 82	9,550 43		17,047 46	8,000 37
1863	936,513 15	215,414 44	134,750 00	307 50	26,167 36	19 159 87	8,824 61		14,910 03	7,374 42
1864	959,974 41	234,584 88	148,150 00	340 00	25,007 00	25 209 18	6,301 32		4,915 41	8,367 84
1865	1,033,991 38	272,415 61	152,125 25	1,538 50	26,297 71	31,112 72	5,722 22		2,801 13	15,564 72
1866	1,100,433 54	319,012 27	153,266 00	160 00	26,368 47	46,219 68	4,612 49		20,463 58	15 129 62
1867	1,229,632 96	314,483 34	144,499 00		27,428 50	34,325 42	5,869 42		66 165 63	9,232 27
1868	1,271,222 44	349,441 52	166 805 00	40 00	25 337 00	25,042 32	9,124 81		104,524 60	3,766 74
1869	1,258,939 36	341,563 41	160,430 00	20 00	24,214 00	21,733 70	5,042 03		105,909 97	6,756 37
1870	1,185,966 20	109,248 20	148,347 50	40 00	23,046 50	26,057 85	5,053 78		104,354 68	2,694 80
1871	1,250,295 69		80,702 50	13 00	19,830 12	24 679 11	6 207 53		111,978 56	7,002 18
1872	1,411,091 16		54,550 00		30,238 25	29,531 02	4,650 08		99,500 49	6,067 37
1873	1,465 565 02		50 050 00		79,719 10	30,485 78	3 574 70		63,811 90	4,496 75
1874	1,414,479 80		38,650 00		46,395 25	24,093 35	3,792 06		51,386 72	9,652 55
1875	1,406,274 83		51,862 18		39,137 85	23,128 82	3,260 38		48,014 75	4,774 81
1876	1,443,662 78		43,099 84		48,143 16	23,840 53	2,811 45		46,292 67	3,593 01
1877	1,509 344 60		68,743 41		43,899 30	31 625 72	2,577 73		34 207 62	4,872 78
1878	1,641,390 45		62 741 33		52,731 63	29,065 55	2 732 94		41,236 46	5,597 74
1879	1,665,550 29		64,941 27		39,967 66	19,789 95	2,845 66		29,512 11	6 293 30
1880	1,606,009 47		66,693 44		37,100 25	19,217 05	2,482 19		26,826 17	9 504 02
1881	1,576,915 43		443,148 81		38,614 76	14,343 94	2,695 37		16,624 69	13 016 18
1882	1,714,409 06		233,147 78		37,994 56	20,404 23	5,457 99		13,964 20	8,452 32
1883	1,954,808 59		253,368 70		27,673 93	23 748 78	3,358 97		8 429 20	12,890 94
1884	2,081,011 79		271,239 74		55,089 34	24,603 66	3,679 88		18,429 40	7,146 14
1885	2,235,272 30		296,591 29		43,886 83	27,409 15	2,746 00		8,066 63	7,851 23
1886	2,485,657 61		240,786 47		35,626 00	27,612 75	6,062 59		13,533 16	16,317 30
1887	2,628,623 75		307,139 13		35 438 50	32,054 38	3 841 86		9,852 29	8,831 36
1888	2,568,718 38		346,390 75		51,506 08	30,263 19	2,060 01		8,869 14	13,006 04
1889	2,712 259 54		326,559 21		37,029 06	42,767 97	2,992 09		14,613 90	21,146 44
1890	2,840,257 02		330,344 65		49,385 31	56,837 68	2,282 19		8,335 32	12,134 89
1891	3,261,723 73		351,522 70		48,588 72	53,193 26	1,947 41		6,133 90	10,356 10
1892	3,301,248 75		354 280 18		48 239 04	51,213 00	2,563 65		5 378 90	14,249 50
1893	3,846,967 64		345,946 35		48,017 51	56 149 69	2,176 74		5,156 89	16,792 23
1894	3,638,463 42		297,610 12		46,800 00	70,137 65	1,445 30		7,678 68	22 012 54
1895	3,830,340 71		336 563 32		44,300 00	63 355 11	1,344 16		6,454 10	22 055 71
1896	4,051,555 15		346,598 24		46,829 53	41,254 40	2,002 54		4,057 50	22,301 17
1897	4,301,631 11		366,538 85		45,792 50	56,097 32	1,434 29		7,372 42	31 690 09
1898	4,411,104 89		377,167 92		33,219 69	129,224 97	1,342 39		8,470 94	31,123 17
1899	4,585,880 73		372,451 03		25,067 50	110,812 26	1,389 96		3,097 80	35,426 79
1900	4,848,503 04		369,076 06		17,960 00	97 043 57	1,557 39		259 50	32,551 20
Totals	$96,805,164 79	$1,562,303 78	$9,816,526 76	$14,814 41	$1,879,307 23	$1,757,838 07	$345,288 96	$5,797 00	$1,600,857 46	$519,060 04

Years.	Interest on West Farms Gas Tax.	Interest Generally.	Mayoralty Fees.	Court Fees and Fines.	Fines and Penalties.	Police.	Stenographers' Fees.	Tavern and Excise Licenses.	Sewer Permits.	Interest on Revenue Bonds.
1844			$1,259 00	$8,161 98	$1,281 45	$4 920 51		$34,987 10		
1845			2,080 00	9,714 06	1 472 98	6,066 42		35,079 89	$1,780 00	
1846			2,184 00	12,055 28	445 29	7,417 49		36,563 19	280 00	
1847			999 00	14,899 81	3,972 08	5,236 31		41,565 55		
1848		841 04	765 00	15,438 25	479 97	3,722 15		47,406 92		
1849		1,047 75	1,096 00	13 467 61	670 42	2,533 51		48,746 29		
1850		2,414 52	743 00	11,948 43	2,723 53	2,370 18		53,493 05		
1851			710 00	13,117 93	2,605 20	3,436 17		60,221 63		
1852			620 00	14,587 54	2 095 27	2,524 61		67,972 75		
1853		2 520 55	646 00	13,305 86	11 050 53	3,152 74		78,121 05		
1854		2,712 33	410 00	17,509 57	21,792 64	3,563 80		62,787 00		
1855		20,739 72	408 00	19,730 82	9,667 80	3,611 84		12,480 50		
1856		41,819 20	148 00	15,844 50	8,522 48	1,435 98		10,554 00		
1857		30,000 00		19,713 20	11,417 99	1,246 55		8,930 25		
1858			985 57	17,140 44	12,471 80	563 52		10,499 25		
1859			1 058 35	32,135 01	6,977 06					
1860			1,091 72	27,404 62	2,205 31					
1861			1,168 84	25,177 33	470 15					
1862			828 27	17,959 70	864 79					
1863			511 99	13,188 00	515 61					
1864			662 25	20,420 10	1,071 00					
1865			574 00	24,878 50	1,074 65					
1866			703 75	23,305 50	4,090 08					
1867			506 75	14,277 25	6 609 02					
1868			406 50	8,296 00	2,028 97					
1869			349 75	8 606 00	1,675 22					
1870			236 75	8,746 00	312 01					
1871			290 00	8,445 05	196 93					
1872			524 00	15,021 00	3,636 38					
1873			49 00	19,163 75	13,682 53					
1874				89,508 70	21,197 07		$6,555 00			
1875				94,912 81	23,447 05		10,071 00			
1876				96,535 58	22,863 54		8,913 00			
1877				114,287 91	18,251 36		11,024 00			
1878				88,365 27	18,380 66		7,941 00			
1879				72,164 78	14,019 75		7,542 00			
1880	$47 79			86,047 83	12,736 12		8,046 00			
1881	109 99			100,449 49	15 113 85		9,003 00			
1882	72 55			104,102 44	17,151 05		9,082 00			
1883	116 18			116,489 58	19,494 48		10,236 00			
1884	97 05			108,654 58	17 136 32		9,795 00			
1885	29 88			111,321 45	26,542 76		10,971 00			
1886	31 75			113,419 05	27,449 26		10,152 00			
1887	22 05			142,855 89	33 276 00		10,413 00			
1888	23 49			141,590 90	34 081 06		12,724 60			
1889	46 09			150,435 88	32,548 31		13,191 00			
1890	28 10			135,405 81	33,299 53		15,258 00			$8,232 20
1891	14 30			116,661 89	28,907 82		17,640 00			26,820 52
1892	7 38			134,460 37	25,706 86		14,757 00			14 832 19
1893	25 51			141,712 47	22,317 40		14,487 00			24,073 97
1894	55			157,232 85	23,559 97		16,464 00			
1895	19 28			220,845 55	32,884 29		15,033 00			
1896	87 86			192,547 12	42,239 45		16,455 00			30,847 55
1897	12 50			165,608 81	42,329 55		15,822 00			11,100 00
1898	22 85			186,994 23	41,249 63		17,232 00			
1899	51 51			201,255 21	45,562 89		15,522 00			875 00
1900	3 15			174,268 70	40,266 84		17,322 00			13,500 00
Totals	$869 81	$101,295 11	$22,015 49	$4,041,794 24	$868,182 10	$51,801 78	$331,651 60	$609,408 42	$2,060 00	$130,281 43

Years.	Commutation of Alien Passengers.	Night Soil Contract.	Sales of Personal Estate	Street Manure.	Taxation	Totals.	Years.
1844	$6,508 67		$1,063 62		$302,517 15	$570,525 23	1844
1845	9,021 00		6,380 10		375,000 00	770,410 50	1845
1846	14 610 00		4,218 99		300,000 00	739,410 88	1846
1847	5,449 50		1,469 77		300,000 00	771,048 86	1847
1848			1,634 55		276,000 00	799,204 15	1848
1849			1,887 88		250,000 00	800,678 25	1849
1850			5,825 49		186,689 00	943,842 76	1850
1851						751,154 24	1851
1852						926,517 59	1852
1853						984,500 68	1853
1854			2,775 00			1,101,939 86	1854
1855						1,132,610 92	1855
1856			900 00			1,136,852 65	1856
1857		$2,000 00	36 00			1,143,281 83	1857
1858		1,194 66	778 66	$2 960 80		1,159,388 51	1858
1859			1,901 28	12,472 93		1,224,605 01	1859
1860			2,887 78	17,928 68		1,222,597 38	1860
1861			1,211 52	852 42		1,213,058 64	1861
1862			25 00			1,279,122 49	1862
1863			225 00	10,451 04		1,388,313 02	1863
1864			1,524 60	15,956 30		1,452,484 38	1864
1865			6,535 05	28,222 99		1,602,854 43	1865
1866			16,118 06	16,666 65		1,746,549 69	1866
1867				19,999 97		1,873,119 53	1867
1868			4,150 18	18,333 33		1,988,519 41	1868
1869			35,864 92	25,000 00		1,996,104 73	1869
1870				20,000 00		1,634,104 27	1870
1871			29,096 35			1,538,737 02	1871
1872				28,777 78		1,683,587 53	1872
1873						1,730,598 53	1873
1874						1,705,710 50	1874
1875						1,707,884 48	1875
1876						1,739,755 56	1876
1877						1,838,834 43	1877
1878						1,950,183 03	1878
1879						1,922,626 77	1879
1880						1,874,710 33	1880
1881						2,230,035 51	1881
1882						2,164,238 18	1882
1883						2,430,615 35	1883
1884						2,596,882 90	1884
1885						2,770,688 52	1885
1886						2,976,647 94	1886
1887						3,212,348 21	1887
1888						3,209,233 64	1888
1889						3,353,589 49	1889
1890						3,491,800 70	1890
1891						3,923,510 35	1891
1892						3,966,936 82	1892
1893						4,523,823 40	1893
1894						4,281,405 08	1894
1895						4,573,195 23	1895
1896						4,796,775 51	1896
1897						5,045,429 44	1897
1898						5,237,152 68	1898
1899						5,397,392 68	1899
1900						5,612,311 45	1900
Totals	$35,589 17	$3,194 66	$126,509 80	$217,622 89	$1,990,206 15	$125,839,441 15	Total.

NOTE—Some of the items of revenue in this table are stated as "gross" receipts—*i. e.*, without deduction for refunds subsequently made therefrom. These refunds (for errors, over payments, etc.) are sometimes made in the same year as the revenues were received, and sometimes in subsequent years. The aggregate of such refunds, however is not sufficiently large to affect materially the figures above stated.